

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Khachatur Papanyan, Ken Maranian, Hang H. Ng		
Assignee:	Dell Products L.P.		
Title:	Method and Apparatus for Web Cache Using Database Triggers		
Serial No.:	10/601,353	Filed:	June 23, 2003
Examiner:	Dangelino N. Gortayo	Group Art Unit:	2168
Docket No.:	DC-05118	Customer No.:	33438

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Austin, Texas  
May 21, 2007

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Board of Patent Appeals and Interferences  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF UNDER 37 CFR § 41.37**

Dear Sir:

Applicant submits this Appeal Brief pursuant to the Notice of Appeal filed in this case on March 21, 2007. The fee for this Appeal Brief is being paid via the USPTO EFS. The Board is also authorized to deduct any other amounts required for this appeal brief and to credit any amounts overpaid to Deposit Account No. 502264.

**I. REAL PARTY IN INTEREST - 37 CFR § 41.37(c)(1)(i)**

The real party in interest is the assignee, Dell Products L.P., as named in the caption above and as evidenced by the assignment set forth at Reel 014241, Frame 0937.

**II. RELATED APPEALS AND INTERFERENCES - 37 CFR § 41.37(c)(1)(ii)**

Based on information and belief, there are no appeals or interferences that could directly affect or be directly affected by or have a bearing on the decision by the Board of Patent Appeals and Interferences in the pending appeal.

### **III. STATUS OF CLAIMS - 37 CFR § 41.37(c)(1)(iii)**

Claims 1, 4-6, 8, 12-15, and 19-21 are pending in the application. Claims 1, 4-6, 8, 12-15, and 19-21 stand rejected. The rejection of claims 1, 4-6, 8, 12-15, and 19-21 is appealed. Appendix “A” contains the full set of pending claims.

### **IV. STATUS OF AMENDMENTS - 37 CFR § 41.37(c)(1)(iv)**

On March 22, 2006, Applicants filed a Response to Non-Final Office Action in which claims 2-3, 7, 9-10 and 16-17 were canceled, and claims 1, 4, 5, 8, and 11-13 were amended. On September 18, 2006, Applicants filed a Response to Non-Final Office Action in which dependent claims 11 and 18 were canceled, and claims 1 and 8 were amended. No other amendments to the claims have been submitted.

### **V. SUMMARY OF CLAIMED SUBJECT MATTER - 37 CFR § 41.37(c)(1)(v)**

Applicants’ invention relates to a system and method for delivering a web page to a client. Various embodiments of Applicants’ invention comprise a web server having a plurality of cached web pages stored therein and a database server comprising a plurality of data tables and a web page cache table. The web server is operable to receive a request from a client for a web page and to communicate with the database server to determine if a current version of the requested web page is within the plurality of cached web pages stored in the web server. The web server is further operable to transmit the requested web page to the client upon an affirmative determination that the corresponding web page stored on the web server is the current version of the requested web page. (Figure 1, Specification Page 5, lines 2-10). In response to a query from the web server, the database server is operable to examine a flag in a data field in the web page cache table corresponding to the requested web page to determine if the most current version of the requested web page is stored on the web server. (Specification Page 6, lines 19-25; Page 7, lines 1-19). The database server is operable to detect the execution of a database trigger and, in response to detection of execution of a database trigger, is further operable to set the flag to a value indicating that the version of the web page stored on the web server is not the most current version of the requested web page. (Specification Page 8, lines 4-16; Page 5, lines 14-22).

**VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL - 37 CFR § 41.37(c)(1)(vi)**

The question submitted for review is whether claims 1, 4-6, 8, 12-15, and 19-21 are properly rejected under 35 U.S.C. § 102(e), as being anticipated by U. S. Patent No. 6,990,526 to Zhu.

**VII. ARGUMENT - 37 CFR § 41.37(c)(1)(vii)**

In summary, Applicants respectfully submit that the rejection of claims 1, 4-6, 8, 12-15, and 19-21 under 35 U.S.C. §102(e) in the Final Office Action should be removed because the claims are not anticipated by Zhu.

Independent claims 1, 8, and 15 were previously amended to recite that Applicants' invention comprises a database server that detects the execution of database triggers and, in response to detection of execution of a database trigger, is operable to set a flag to a value indicating that the version of the web page stored on a web server is not the most current version of the requested web page.

In the Final Office Action, Examiner stated that the Zhu reference discloses a database server that is operable to detect the execution of a database trigger. In support of this proposition, Examiner cites Figure 4 and the coherency management module discussed in Zhu in column 6, lines 33-67. Examiner asserts that the cited portion of Zhu discloses a "decision process to monitor activity, detecting when activity decisions are met and an update interval is indicated." Applicants assume, based on the statement in the office action, that Examiner equates the processing steps described in the cited portion of Zhu to anticipate the database triggers recited in independent claims 1, 8 and 15 of Applicants' patent application. Applicants respectfully submit that the cited portion of Zhu fails to anticipate the database trigger limitation recited in independent claims 1, 8 and 15 of Applicants' patent application.

The cited portion of Zhu relates to the use of web page "signatures" to determine whether a web page needs to be updated. The coherency management module caches the signatures and

the corresponding URL and uses the signatures to determine when a page has been updated. The signature is computed using cryptographic techniques and, in particular, a hash function for which the input is the corresponding web page for which a signature is to be generated.

The techniques disclosed in the cited portions of Zhu do not anticipate the database triggers recited in independent claims 1, 8, and 15 of Applicants' patent application. The use of database triggers for updating and caching web pages, based on the well-understood meaning of "database triggers," is not disclosed in the portions of Zhu cited by Examiner, nor elsewhere in the Zhu reference.

In the Advisory Action issued on March 1, 2007, Examiner continues to equate the updating mechanism of Zhu to the database trigger limitation recited in independent claims 1, 8, and 15, even though Zhu does not teach the use of a database trigger. In the Advisory Action, Examiner notes that Figure 1 shows both stored procedures and triggers. This is not inconsistent with the well-understood definition of "database trigger" as understood by those of skill in the art. A database trigger is a "stored procedure" that is invoked automatically when a predefined event occurs. Furthermore, a "stored procedure" is a set of SQL commands that has been compiled and stored on the database server. These terms are well understood in the art. See, for example, the definitions of a database trigger and a "stored procedure" provided on the Tech-Faq web page at <http://www.tech-faq.com/database-trigger.shtml> and <http://www.tech-faq.com/stored-procedure.shtml>. Once the stored procedure has been "stored," client applications can execute the stored procedure over and over again without sending it to the database server again and without compiling it again.

In the Advisory Action, Examiner states that the claims do not specifically recite "stored procedures" nor "SQL commands" and that "the specification cannot be read into the claims when examining claims." As discussed above, those of skill in the art would understand database trigger to include those terms. Applicants submit, therefore, that it is not necessary to "read the specification into the claims" for examination.

For the reasons set forth above, it is respectfully submitted that Zhu does not anticipate Applicants' invention as recited in independent claims 1, 8, and 15, and, therefore the rejection of those claims under 35 U.S.C. §102(e) should be removed. Furthermore, it is respectfully

submitted that dependent claims 4-6, 12-14, and 19-21 are allowable as being dependent on an allowable base claim.

**VIII. CLAIMS APPENDIX - 37 CFR § 41.37(c)(1)(viii)**

A copy of the pending claims involved in the appeal is attached as Appendix A.

**IX. EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)**

None.

**X. RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)**

None.

**XI. CONCLUSION**

For the reasons set forth above, Applicants respectfully submit that rejection of pending Claims 1, 4-6, 8, 12-15, and 19-21 is unfounded, and requests that the rejection of claims 1, 4-6, 8, 12-15, and 19-21 be reversed.

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Respectfully submitted,

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**CLAIMS APPENDIX - 37 CFR § 41.37(c)(1)(viii) - APPENDIX A**

1           1.       (Previously Presented)       A method for delivering a web page to a client,  
2 comprising:  
3           receiving a request from a client for a web page;  
4           generating a query from a web server to a database server, said database server  
5                comprising a plurality of data tables and a web page cache table;  
6           using said database server to detect execution of database triggers for updating status  
7                flags in said web page cache table;  
8           examining a flag in a data field in said web page cache table corresponding to said  
9                requested web page to determine if the most current version of said requested web  
10               page is stored on said web server; and  
11           returning the most current version of the web page to the client.

1           2-3.   (Canceled)

1           4.       (Previously Presented)       The method of claim 1 further comprising:  
2 returning the version of said web page stored on said web server to the client if the  
3           examination of said flag in said data field indicates that the version of the web  
4           page stored on said web server is the most current version of said requested web  
5           page.

1           5.       (Previously Presented)       The method of claim 1 further comprising:  
2 generating an updated version of said requested web page if the examination of said flag  
3           in said data field indicates that the version of the web page stored on said web  
4           server is not the most current version of said requested web page; and  
5           returning said updated version of said requested web page to said client.

1           6.       (Original)       The method of claim 5 further comprising:  
2 caching said updated version of said requested web page.

1           7.     (Canceled)

1           8.     (Previously Presented)     A system for delivering a web page to a client,  
2 comprising:

3           a web server having a plurality of cached web pages stored therein, said web server being  
4           operable to receive a request from a client for a web page and to communicate  
5           with said database server to determine if a current version of said requested web  
6           page is within said plurality of cached web pages stored in said web server, said  
7           web server further being operable to transmit said requested web page to said  
8           client upon an affirmative determination that the corresponding web page stored  
9           on said web server is the current version of said requested web page;

10          a database server comprising a plurality of data tables and a web page cache table, said  
11          database server being operable to examine a flag in a data field in said web page  
12          cache table corresponding to said requested web page to determine if the most  
13          current version of said requested web page is stored on said web server, wherein  
14          said database server is operable to detect the execution of a database trigger and,  
15          in response to detection of execution of said database trigger, is further operable  
16          to set said flag to a value indicating that the version of the web page stored on  
17          said web server is not the most current version of said requested web page.

1           9-11. (Canceled)

1           12.    (Previously Presented)     The system of claim 8 wherein said web server is  
2 operable to transmit the version of said web page stored on said web server to the client if the  
3 examination of said flag in said data field indicates that the version of the web page stored on  
4 said web server is the most current version of said requested web page.

1           13.     (Previously Presented)       The system of claim 8 wherein said web server is  
2 operable to:  
3           generate an updated version of said requested web page if the examination of said flag in  
4           said data field indicates that the version of the web page stored on said web server  
5           is not the most current version of said requested web page; and  
6           transmit said updated version of said requested web page to said client.

1           14.     (Original)       The system of claim 13 wherein said database server is operable to  
2 update said web page cache table to set said flag to a value indicating that the version of the  
3 requested web page stored on said web server is the most current version of said requested web  
4 page.

1           15.     (Previously Presented)       An information handling system comprising a  
2 system for delivering a web page to a client, comprising:  
3           a plurality of data processing components operable to process data corresponding to a  
4           web page;  
5           wherein said information handling system is operable to communicate with:  
6           a web server having a plurality of cached web pages stored therein, said web  
7           server being operable to receive a request from a client for a web page and  
8           to communicate with said database server to determine if a current version  
9           of said requested web page is within said plurality of cached web pages  
10          stored in said web server, said web server further being operable to  
11          transmit said requested web page to said client upon an affirmative  
12          determination that the corresponding web page stored on said web server  
13          is the current version of said requested web page;  
14          a database server comprising a plurality of data tables and a web page cache table,  
15          said database server being operable to examine a flag in a data field in said  
16          web page cache table corresponding to said requested web page to  
17          determine if the most current version of said requested web page is stored  
18          on said web server, wherein said database server is operable to detect the  
19          execution of a database trigger and, in response to detection of execution



20 of said database trigger, is further operable to set said flag to a value  
21 indicating that the version of the web page stored on said web server is not  
22 the most current version of said requested web page.

1 16-18. (Canceled)

1 19. (Previously Presented) The system of claim 15 wherein said web server is  
2 operable to transmit the version of said web page stored on said web server to the client if the  
3 examination of said flag in said data field indicates that the version of the web page stored on  
4 said web server is the most current version of said requested web page.

1 20. (Previously Presented) The system of claim 15 wherein said web server is  
2 operable to:  
3 generate an updated version of said requested web page if the examination of said flag in  
4 said data field indicates that the version of the web page stored on said web server  
5 is not the most current version of said requested web page; and  
6 transmit said updated version of said requested web page to said client.

1 21. (Original) The system of claim 20 wherein said database server is  
2 operable to update said web page cache table to set said flag to a value indicating that the  
3 version of the requested web page stored on said web server is the most current version of  
4 said requested web page.

**EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)**

None.

**RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)**

None.